

MAR 29 2007

Amendment under 37 C.F.R. § 1.111
U.S. Appln No. 10/659,263

Atty Docket No. Q77329

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for driving a display panel in which discharge cells are formed at intersections between a plurality of row electrode pairs corresponding to display lines, and a plurality of column electrodes intersecting with said row electrode pairs, said display panel being driven in sub-fields, each field of a video signal being constituted by a plurality of said sub-fields, wherein:

each of at least two successive sub-fields including a leading sub-field includes a selective write addressing step for setting said discharge cells to a lighted discharge cell mode by applying a scan pulse to one row electrode of said row electrode pair while applying a data pulse corresponding to said video signal to said column electrode thereby selectively causing a selective writing discharge in said discharge cells;

the sub-fields following said at least two sub-fields include a selective erasure addressing step for setting said discharge cells to an unlighted discharge cell mode by applying said scan pulse to one row electrode of said row electrode pair while applying the data pulse corresponding to said video signal to said column electrode thereby selectively causing a selective erasing discharge in said discharge cells; and an emission sustain step for applying sustain pulses to said row electrode pairs thereby causing a sustain discharge to be repeated a number of times corresponding to a weighting of that sub-field only in said discharge cells that are in said lighted discharge cell mode;

Amendment under 37 C.F.R. § 1.111
U.S. Appln No. 10/659,263

Atty Docket No. Q77329

the last sub-field of each field includes a first erasing step for applying a first voltage to one row electrode of said row electrode pair and a second voltage to the other row electrode of said row electrode pair to induce ~~inducing~~ a first erasing discharge between said column electrode and ~~said one row electrode of the row electrodes of~~ said row electrode pair in only discharge cells in which both said selective writing discharge and said selective erasing discharge have been caused in each field, said first voltage and said second voltage have the same polarity; and

a second erasing step for inducing a second erasing discharge between the row electrodes of said row electrode pair in only discharge cells in which said selective writing discharge has been caused without said selective erasing discharge in each field, said first erasing step and said second erasing step being performed immediately after said emission sustain step.

2. (original): The method for driving a display panel according to claim 1, further comprising a reset step for initializing all of said discharge cells to said unlighted discharge cell mode by causing a universal reset discharge in all discharge cells before said selective write addressing step in only said leading sub-field.

3. (original): The method for driving a display panel according to claim 1, wherein intermediate luminance of N+1 gradations is displayed by inducing sustain discharges in said emission sustain steps of N leading sub-fields of each field.

Amendment under 37 C.F.R. § 1.111
U.S. Appln No. 10/659,263

Atty Docket No. Q77329

4. (currently amended): A method for driving a display panel in which discharge cells are formed at intersections between a plurality of row electrode pairs corresponding to display lines, and a plurality of column electrodes intersecting with said row electrode pairs, said display panel being driven in sub-fields, each field of a video signal being constituted by a plurality of said sub-fields, wherein:

a leading sub-field of each field includes a selective write addressing step for setting said discharge cells to a lighted discharge cell mode by applying said scan pulse to one row electrode of said row electrode pair while applying a data pulse corresponding to said video signal to said column electrode thereby selectively causing a selective writing discharge in said discharge cells;

the sub-fields following said leading sub-field include a selective erasure addressing step for setting said discharge cells to an unlighted discharge cell mode by applying said scan pulse to one row electrode of said row electrode pair while applying the data pulse corresponding to said video signal to said column electrode thereby selectively causing a selective erasing discharge in said discharge cells; and an emission sustain step for applying sustain pulses to said row electrode pairs thereby causing a sustain discharge repeated a number of times corresponding to a weighting of that sub-field only in said discharge cells that are in said lighted discharge cell mode;

the last sub-field of each field includes a first erasing step for applying a first voltage to one row electrode of said row electrode pair and a second voltage to the other row electrode of said row electrode pair to induce ~~inducing~~ a first erasing discharge between said column electrode and said one row electrode ~~of the row electrodes~~ of said row electrode pair in only discharge cells in which both said selective writing discharge and said selective erasing

Amendment under 37 C.F.R. § 1.111
U.S. Appln No. 10/659,263

Atty Docket No. Q77329

discharge have been caused in each field, said first voltage and said second voltage have the same polarity; and

a second erasing step for inducing a second erasing discharge between the row electrodes of said row electrode pair in only discharge cells in which said selective writing discharge has been caused without said selective erasing discharge in each field, said first erasing step and said second erasing step being performed immediately after said emission sustain step.

5. (original): The method for driving a display panel according to claim 4, further comprising a reset step for initializing all of said discharge cells to said unlighted discharge cell mode by causing a universal reset discharge in all discharge cells before said selective write addressing step in only said leading sub-field.

6. (original): The method for driving a display panel according to claim 4, wherein intermediate luminance of $N+1$ gradations is displayed by inducing sustain discharges in said emission sustain steps of N leading sub-fields of each field.

7. (new): The method for driving a display panel according to claim 1, wherein only said last sub-field of each field includes said first erasing step and said second erasing step.

8. (new): The method for driving a display panel according to claim 4, wherein only said last sub-field of each field includes said first erasing step and said second erasing step.